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10/530,418	01/09/2006	Alan Lionel Hudd	000603-002	6706
44012	7590	01/14/2009	EXAMINER	
WRB-IP LLP			LEE, DORIS L	
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ALEXANDRIA, VA 22314			PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/530,418	Applicant(s) HUDD ET AL.	
	Examiner Doris L. Lee	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) 19-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20050407</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group 1 (claims 1-12, 14-17, 23 and 24) in the reply filed on November 17, 2008 is acknowledged. The claims of Group 2 (claim 19) and Group 3 (claims 20-22) have been withdrawn. The traversal is on the ground(s) listed below, but have not been found persuasive as indicated in the Examiner's response:

2. **Applicant's argument:** Group II (claim 19) is drawn to an inkjet printing cartridge and should be included in Group 1. Group 2 and Group 1 are therefore related as combination/subcombination in accordance to MPEP 806.05(c). The applicant refers to section 802.03 to show that the restriction for international applications is governed by MPEP 806.05. Examiner has not established that examining Group I and Group II would present a serious burden.

Examiner's response: *As this is a 371 of a PCT, the restriction practice in MPEP 806.05 (c) is not applicable. There is no paragraph 802.03 in the MPEP. Restriction of 371 applications is governed by "requirement of unity of invention" PCT Rule 13. PCT Rule 13 has no requirement of proving that the examination of the restricted group would present a serious burden.*

3. **Applicant's argument:** With respect to the restriction of Group 3 (claims 20-22), the examiner has failed to establish either anticipation or a *prima facie* case of obviousness based on the references cited in the Search Report.

Examiner's response: *Anticipation or a prima facie case of obviousness is not required for a 371 lack of unity. The only necessary is the evidence that the special technical feature was known in the art at the time the invention was made.*

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

4. **Claim 16** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. For the purpose of this office action, claim 16 will be considered to depend from claim 15. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 14, 16 and 23** contain the trademark/trade name Addid 300 or BYK-333.

Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods

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associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the surfactant and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-7 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Johnson et al (WO 99/29787)**.

Regarding claims 1-4 and 7, Johnson teaches a non-aqueous UV-curable (abstract) ink composition for inkjet printing comprising a colorant (Abstract), a UV-curable organic diluent (Abstract) and a silicone derivative (page 13, last paragraph) which is used to reduce the surface tension of the ink, thus behaving like a surfactant. Johnson teaches that the surfactant is an acrylate modified polydimethylsiloxane (page 15, first paragraph).

Regarding the limitations that said composition causes the loss of no more than 5%, further 1% of the nozzles in an ink jet print head after 750 prints and providing a hole to area ratio of no more than 0.05, further 0.02, further 0.007.

Since Johnson teaches the components of the composition as recited in the claim, it is therefore inherent that the prior art composition inherently has the desired

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loss of nozzle and hole to area ratio properties since such properties are evidently dependent upon the nature of the composition used. Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claims 5 and 6, Johnson teaches that the silicone derivative is used 0.1 to 0.6 wt % of the ink (page 14, line 6).

Regarding claim 17, Johnson teaches an ink composition consisting essentially of:

- 0.01% to 50 % by weight of pigment (page 7, paragraph 4).
- 15 to 100 % of a dispersant system (based on the amount of pigment) (page 8, paragraph 2).
- UV-curable organic diluent which consists of
 - monofunctional (20 to 60 %, page 15, paragraph 2) and
 - difunctional and tri or higher functional material (5 – 30 % by weight, page 16, paragraph 2).
 - It is noted that the sum of these 2 components make up the UV-curable organic diluent and therefore the total amount of organic diluent in the ink composition is (25-90 % which reads on the claimed limitation).
- silicone derivative (surfactant) is used 0.1 to 0.6 wt % of the ink (page 14, line 6).
- 3% to 15 % by weight of photo initiator (page 19, paragraph 2)

9. **Claims 8-12 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Johnson et al (WO 99/29787)** in view of **Wacker Silicones Corp, Booth 1105**,

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Metal Finishing Volume 99, Issue 10, October 2001, Page 50.

([http://www.sciencedirect.com/science/article/B6TX7-455X3NP-](http://www.sciencedirect.com/science/article/B6TX7-455X3NP-7P/1/b2b67ba0ddc24327127f1f8949ac36df)

[7P/1/b2b67ba0ddc24327127f1f8949ac36df](http://www.sciencedirect.com/science/article/B6TX7-455X3NP-7P/1/b2b67ba0ddc24327127f1f8949ac36df)) with evidence provided by Turgis et al (US 2004/0157959).

The discussion regarding Johnson in paragraph 8 above is incorporated by reference.

Regarding claims 8-12 and 14, although Johnson teaches a UV-curable ink (Abstract) in which an acrylate modified polydimethylsiloxane derivative (page 15, first paragraph) is used as a surfactant, it fails to teach that the siloxane derivative is Addid 300.

Wacker Silicones Corp teaches that Addid 300 is an additive for a UV Curable system (Wacker Silicone Corp, Booth 1105 section). It is evidenced by Turgis that Addid 300 is a silicone product used to adjust the flow, surface tension and gloss of a cured printing ink ([0075]).

It is noted that Turgis does not antedate the filing date of the instant application. However, references cited to show a universal fact need not be available as prior art before applicant's filing date. Such facts include the characteristics and properties of a material or a scientific truism, see MPEP 2124.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the Addid 300 as taught by Wacker Silicone Corporation as the siloxane derivative in Johnson. This would be nothing more than using a known

compound in a known environment to produce predictable results. KSR v. Teleflex, 550 U.S. ___, 82 USPQ2d 1385 (2007).

Regarding the limitations in claims 8-12, it is noted that since Addis 300 is the same composition as used in the present invention, it is clear that the composition would inherently be a tetraacrylate-modified polydimethylsiloxane having fifteen dimethylsiloxane groups and is not further organo-modified and not polyether-modified. Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

10. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Johnson et al (WO 99/29787)** in view of **Bieleman, Additives for Coatings, page 170**).

The discussion regarding Johnson in paragraph 8 above is incorporated by reference.

Regarding claim 15, Johnson teaches that organo modified polysiloxanes can be used as surface tension modifiers (page 14, last 2 lines), however, Johnson fails to teach that the organo-modified polysiloxane is a polyether-modified polydimethylsiloxane.

Bieleman teaches that polyether-modified polydimethylsiloxanes have been used in coating formulations (page 170).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the polyether-modified polydimethylsiloxane of Bieleman as the organo modified polysiloxane of Johnson. One would have been motivated to do so in

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order to receive the expected benefit of controlling the compatibility, surface tension reduction, heat stability, etc.. (Bieleman, page 170). They are combinable because they are concerned with the same field of endeavor, namely polysiloxanes used in coating materials to control surface tension.

11. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Johnson et al (WO 99/29787)** in view of **Bieleman, Additives for Coatings, page 170)** with evidence provided by **Locken et al (WO 00/32667, please refer to US 6,534,588 for the English language equivalent).**

The discussion regarding Johnson and Bieleman in paragraph 10 above is incorporated here by reference.

Regarding claim 16, modified Johnson teaches that the surfactant can be a polyether-modified polydimethylsiloxane (Bieleman, page 170). As evidenced by Locken, BYK 333 is a commercially available polyether-modified dimethylsiloxane (col. 27, lines 1-17).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the BYK 333 of Locken as the polyether-modified polydimethylsiloxane of modified Johnson. One would have been motivated to do so in order to receive the expected benefit of being able to by a component of the ink off the shelf, thus simplifying the compounding of the composition.

12. **Claims 23 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Johnson et al (WO 99/29787)** in view of **Wacker Silicones Corp, Booth 1105, Metal Finishing Volume 99, Issue 10, October 2001, Page 50.**

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(<http://www.sciencedirect.com/science/article/B6TX7-455X3NP->

[7P/1/b2b67ba0ddc24327127f1f8949ac36df](http://www.sciencedirect.com/science/article/B6TX7-455X3NP-7P/1/b2b67ba0ddc24327127f1f8949ac36df)) with evidence provided by **Turgis et al (US 2004/0157959)**.

Regarding claim 23 and 24, Johnson teaches a non-aqueous UV-curable (abstract) ink composition for inkjet printing comprising a colorant (Abstract), a UV-curable organic diluent (Abstract) and a silicone derivative (page 13, last paragraph) which is used to reduce the surface tension of the ink, thus behaving like a surfactant. Johnson teaches that the surfactant is an acrylate modified polydimethylsiloxane (page 15, first paragraph).

Although Johnson teaches a UV-curable ink (Abstract) in which an acrylate modified polydimethylsiloxane derivative (page 15, first paragraph) is used as a surfactant, it fails to teach that the siloxane derivative is Addid 300.

Wacker Silicones Corp teaches that Addid 300 is an additive for a UV Curable system (Wacker Silicone Corp, Booth 1105 section). It is evidenced by Turgis that Addid 300 is a silicone product used to adjust the flow, surface tension and gloss of a cured printing ink ([0075]).

It is noted that Turgis does not antedate the filing date of the instant application. However, references cited to show a universal fact need not be available as prior art before applicant's filing date. Such facts include the characteristics and properties of a material or a scientific truism, see MPEP 2124.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the Addid 300 as taught by Wacker Silicone Corporation as the

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siloxane derivative in Johnson. This would be nothing more than using a known compound in a known environment to produce predictable results. *KSR v. Teleflex*, 550 U.S. ___, 82 USPQ2d 1385 (2007).

Regarding the limitations in 23, it is noted that since Addis 300 is the same composition as used in the present invention, it is clear that the composition would inherently be a block copolymeric tetraacrylate-modified polydimethylsiloxane having fifteen dimethylsiloxane groups. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872. The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Doris L Lee/
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796